

Advances in Terrestrial Ecosystem Carbon Inventory, Measurements, and Monitoring

3-5 October 2000
Raleigh, North Carolina

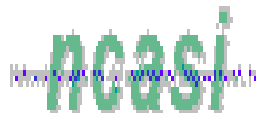
Organized by:

USDA Forest Service

With

USDA Agricultural Research Service
USDA Natural Resources Conservation Service
US Department of Energy
National Aeronautics and Space Administration
National Council for Air and Stream Improvement

Preliminary Announcement
and Call for Papers



The background issues

Forest, agricultural, rangeland, wetland, and urban landscape systems have significant potential for sequestering large amounts of carbon through improved land management practices and increasing productivity. There are numerous means of measuring, monitoring, and analyzing current and potential stores of carbon in forest and agricultural systems. There is a need for developing strategies and methods for increasing terrestrial carbon sequestration. A significant step is advancing the science and technology of measuring and monitoring carbon in these ecosystems.

This conference builds upon recent conferences and workshops on carbon sequestration. It offers an opportunity to extend our knowledge, to exchange new research findings, and to synthesize results in terrestrial carbon stock inventory and accounting. It will bring forest, agriculture, rangeland, wetland, and urban landscape researchers together to share information and create opportunities for collaboration and advancement in these areas.

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Conference scope and objectives

With the signing of the Kyoto Protocol in 1998, the U.S. government reaffirmed its commitment to meet the challenge of climate change by reducing greenhouse gases 7% below 1990 levels. Forestry, agricultural, rangeland, wetland, and urban land use activities contribute to greenhouse gas emissions and sequestration. There will be an opportunity for forestry, agricultural, rangeland, wetland, and urban land use change activities to contribute to greenhouse gas reductions if it can be shown that these activities increase the size of the terrestrial carbon sink. This conference is an opportunity to review the state of the science methods for the inventory and monitoring of terrestrial carbon and land use mitigation strategies.

The conference will cover forest, agriculture, rangeland, wetland, and urban landscapes in the U. S. It will focus on terrestrial ecosystem carbon measurements, monitoring, and mitigation strategies that will increase the U.S. terrestrial carbon sink. The objectives of the conference are:

- To evaluate current methodologies and identify knowledge gaps in terrestrial ecosystem carbon measurement and monitoring in forest, agriculture, rangeland, wetland, and urban landscapes;

- To propose priorities and standardization for terrestrial carbon monitoring, and data collection in forest, agriculture, rangeland, wetland, and urban landscapes; and
- To evaluate current and propose new experimental designs and outputs for increasing carbon storage in forest, agriculture, rangeland, wetland, and urban landscapes landscapes.

Target Audience

Scientists, resource managers, and policy makers interested in carbon inventory and monitoring, carbon cycling, carbon sequestration, and resource management. The primary scope of the meeting will be North America, but participants and papers from outside North America are welcome.

Conference Structure

The conference will be a mixture of key note and contributed papers giving reviews of terrestrial carbon measurement, monitoring, and inventory in forest, agriculture, rangeland, wetland, and urban landscapes.

Papers are invited in the following areas

We invite submission of abstracts for oral presentations in each of the six sessions in the topic areas of 1.) forest, 2.) agriculture, 3.) rangeland, 4.) wetland, 5.)urban, and 6.) the integration of information across landscapes.

Session 1. Carbon stocks in above-ground plant biomass

- 👉 ground-based methods and results
- 👉 remote sensing methods and results
- 👉 integrating ground-based and remote sensing methods and results
- 👉 land use change estimation methods and results

Session 2. Carbon stocks in below-ground plant biomass and soils

- 👉 measurement methods
- 👉 small- and large-scale estimation methods and results
- 👉 relating above- and below-ground carbon inventories
- 👉 measuring effects of land management practices on soil carbon

Session 3. Accounting and verifying changes in carbon stocks

- 👉 evaluating the direction, magnitude, consistency, and measurability of changes in carbon stocks resulting from management activities
- 👉 experimental methods and results in verification

Session 4. Carbon stocks in products

- 👉 estimating carbon stocks in products
- 👉 estimating biomass carbon stock changes in landfills
- 👉 estimating biomass carbon stock changes in products-in-use

Meeting Outline

3 October

8:00-8:30 Presentation of meeting objectives, format and expected outcomes
8:30-9:15 Key note address on need for improved understanding of carbon sequestration and standing stocks
9:15-10:00 Plenary paper on terrestrial carbon in agriculture and rangelands
10:00-10:30 Break
10:30-11:15 Plenary paper on terrestrial carbon in forests and wetlands
11:15-12:00 Plenary paper on terrestrial carbon in urban landscapes
12:00 -1:00 Lunch

1:00-5:00

Session 1: Terrestrial carbon stocks measurement and monitoring in above-ground plant biomass

6:00-8:00 Reception

4 October

8:00-12:00

Session 2: Terrestrial carbon stocks measurement and monitoring in below-ground plant biomass and soils

12:00-1:00 Lunch

1:00-5:00

Session 3: Accounting and verifying changes in terrestrial carbon stocks

5 October

8:00-10:00

Session 4: Carbon stocks in agricultural and forest products

10:00-10:30 Break

10:30-12:00 Group discussion and summary

12:00 Adjourn

Abstract Submission

Those wishing to give a presentation at this conference should submit an abstract by April 30, 2000 to the conference organizer. The abstract should not exceed one page in length and should include: (1) title, authors, organization, locations, and contact author information; (2) objectives of the paper; (3) summary of paper and expected results; and (4) identify session number and topic area. The abstract can be mailed, faxed, or e-mailed to the conference organizer. The Program Committee will select presentations on the basis of the abstracts and will notify authors by June 15, 2000. A Book of Abstracts will be distributed at registration. Electronic copies of the papers to be presented will be due at the start of the conference. Papers will be submitted for a special issue journal. Style guidelines will be provided to authors when they are notified of acceptance to the conference.

Key Outputs

Published keynote papers and abstracts.
Research papers in a special issue of a journal.

Registration

Registration Fee: \$225.00 The registration fee covers conference attendance, reception, one copy of the Abstracts Book, and one copy of the Conference Proceedings.

Hotel and Conference Location

The conference will be held at the North Raleigh Hilton, 3415 Wake Forest Road, Raleigh, North Carolina 27609. Reservation can be made by contacting the reservation desk directly at Hilton reservation phone (800-445-8667) or the North Raleigh Hilton reservation phone (919-872-2323).

Planning Committee

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Registration Form

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Register by September 1, 2000.

First Name _____ Last Name _____

Title _____

Organization _____

Address _____

City _____ State/Province _____

Zip Code _____ Country _____

Telephone _____ FAX _____

E-mail _____

Method of Payment

☐ Check/personal or company check

☐ Money Order

Signature _____ Date _____

Note: Payment in US funds only. Make check payable to: North Carolina State University. Send registration form and payment to: Dr. Steve McNulty, USDA Forest Service, Southern Global Change Program, 920 Main Campus Drive, Venture Center II, Raleigh, North Carolina 27606.